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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,786	10/16/2003	Daisuke Tokunaga	O3020.0356/P356	7020

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EXAMINER	
MORRISON, THOMAS A	
ART UNIT	**PAPER NUMBER**
3653	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/685,786	**Applicant(s)** TOKUNAGA ET AL.	
	Examiner Thomas A. Morrison	**Art Unit** 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2006*.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☒ Claim(s) *1-3* is/are allowed.
6)☒ Claim(s) *4-16,18 and 19* is/are rejected.
7)☒ Claim(s) *17* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 10 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 10, it is unclear what is meant by "said flexible blade is integrally formed". The flexible blade is integrally formed with what other element? Is it integrally formed with the tube body?

Regarding claim 19, it is unclear how the recitation in claim 19 further limits claim 4, from which it depends. Also, it is unclear as to the relationship between the rotation member set forth in claim 4 and the gathering and feeding device set forth in claim 19.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 4, 5, 8-13 and 18-19, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,415,390 (Guerrero).

Regarding claim 4, Figs. 1-5 show a rotation member (including 22 and 24) for a paper gathering and feeding device, the rotation member including a changeable piece (including 24) having a material such that a radius distance between a tip section (tip of

24) and a rotation axis (near 30) is changeable by centrifugal force produced by rotation of the rotation member, the changeable piece being rotatable in a gathering and a feeding direction. Column 2, lines 33-38 of Guerrero explain how the radius distance of the changeable piece (including 24) changes. With regard to the recitation "for a paper gathering and feeding device", this is merely a statement of intended use that has not been given patentable weight. With regard to the recitation, "said changeable piece being rotatable in a gathering and a feeding direction", this recitation merely requires that the changeable piece be rotatable (i.e., capable of rotating) in a gathering and a feeding direction. It is the examiner's position that the changeable piece (including 24) is capable of rotating in a gathering and a feeding direction, as claimed. As such, Guerrero meets the limitations of claim 4.

Regarding claim 5, the changeable piece (including 24) can be considered to be a centrifugal impeller.

Regarding claim 8, in as much as applicant's changeable piece can be wider when rotated in a gathering direction than in a feeding direction, so can the changeable piece (including 24) of Guerrero in view of their similar structures. The rotation speed can be changed to result in a change in the radius distance. See, e.g., claim 5 of Guerrero for an explanation of how the rotation speed can change the radius distance. Also, Figs. 2-3 show that the changeable piece has a curved flexible blade, as claimed.

Regarding claim 9, Fig. 1 shows that the changeable piece (including 24) comprises a tube body (22) and at least one flexible blade (24) extending from the tube body (22).

Regarding claim 10, the dictionary defines "integral" as "formed as a unit with another part". See Merriam Webster's Collegiate Dictionary, 10th Ed., at 607. With this definition in mind, it is the examiner's position that Fig. 2 shows that the flexible blade (24) is integrally formed (e.g., flexible blade (24) is part of the same unit as element 22).

Regarding claim 11, Figs. 2-3 show that the flexible blade has a curved shape.

Regarding claim 12, as best understood, Fig. 1 shows that the flexible blade is biased in a forward direction when the rotation member rotates in a gathering direction. In particular, there is no reference set forth in this claims to define what is a forward direction or a gathering direction.

Regarding claim 13, as best understood, the flexible blade is biased in a reverse direction when the rotation member rotates in a feeding direction. In particular, there is no reference set forth in this claims to define what is a reverse direction or a feeding direction.

Regarding claim 18, in as much as the changeable piece of the instant application gathers paper by rotating in a gathering direction and feeds paper by rotating in a feeding direction, the changeable piece (including 24) of Guerrero can also gather paper if it is rotated in a gathering direction and feed paper if it is rotated in a feeding direction.

Regarding claim 19, it is the examiner's position that the body of claim 19 does not breath life into the preamble of claim 19. As such, the preamble has not been given any patentable weight. Moreover, all of the elements of claim 4 are described above in the rejection of claim 4. Thus, all of the limitations of claim 19 are met.

3. Claims 4-14 and 18-19, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Publication No. 61-2641.

Regarding claim 4, Figs. 1-4 show a rotation member (including 3 and 4) for a paper gathering and feeding device, the rotation member including a changeable piece (including 4) having a material such that a radius distance between a tip section (tip of 4) and a rotation axis (near 3) is changeable by centrifugal force produced by rotation of the rotation member, the changeable piece being rotatable in a gathering and a feeding direction. The English Abstract of Japanese Publication No. 61-2641 explains how the radius distance of the changeable piece (including 4) changes. With regard to the recitation "for a paper gathering and feeding device", this is merely a statement of intended use that has not been given patentable weight. With regard to the recitation, "said changeable piece being rotatable in a gathering and a feeding direction", this recitation merely requires that the changeable piece be rotatable (i.e., capable of rotating) in a gathering and a feeding direction. It is the examiner's position that the changeable piece (including 4) of this Japanese publication is capable of rotating in a gathering and a feeding direction, as claimed. As such, this Japanese publication meets the limitations of claim 4.

Regarding claim 5, the changeable piece (including 4) can be considered to be a centrifugal impeller.

Regarding claim 6, Figs. 1 and 4 show that the centrifugal impeller (including 4) has flexible blades (4) that are retracted when the impeller is stationary and spread out upon rotation of the impeller. See English Abstract.

Regarding claim 7, Japanese Publication No. 61-2641 discloses that the flexible blades (4) are elastic members. See the enclosed English translation of the claim of Japanese Publication No. 61-2641 from PTO Translations. Moreover, the dictionary defines the word "rubber" as "2. Any of numerous synthetic elastic materials of varying chemical composition with properties similar to those of natural rubber." See Webster's II New Riverside University Dictionary,1984, pg. 1023. Based on the expansion and compression properties of the elastic blades (4) of Japanese Publication No. 61-2641, it is the examiner's position that such flexible blades are formed from a rubber material. See also English Abstract for the expansion and contraction of the blades (4).

Regarding claim 8, Fig. 1 shows that the changeable piece (including 4) has a curved flexible blade. Also, in as much as applicant's changeable piece can be wider when rotated in a gathering direction than in a feeding direction, so can the changeable piece (including 4) of Japanese Publication No. 61-2641, e.g., by changing the rotation speed to result in a change in the radius distance. See English Abstract of Japanese Publication No. 61-2641 for an explanation of how rotation speed changes the radius distance.

Regarding claim 9, Fig. 1 shows that the changeable piece (including 4) comprises a tube body and at least one flexible blade extending from the tube body.

Regarding claim 10, Fig. 1 shows that the flexible blade is integrally formed (e.g., integrally formed with the tube body of Fig. 1.

Regarding claim 11, Fig. 1 shows that the flexible blade has a curved shape.

Regarding claim 12, as best understood, Fig. 1 shows that the flexible blade would be biased in a forward direction if the rotation member were to be rotated in a gathering direction, e.g., rotated by hand or by some motor. There is no reference set forth in this claim to define what is a forward direction or a gathering direction.

Regarding claim 13, as best understood, the flexible blade would be biased in a reverse direction if the rotation member were to be rotated in a feeding direction, e.g., rotated by hand or by some motor. There is no reference set forth in this claim to define what is a reverse direction or a feeding direction.

Regarding claim 14, Fig. 1 shows that the flexible blade has a base section joined to the tube body (i.e., integral with the tube body), the base section has a smaller radius than the rest of the blade.

Regarding claim 18, in as much as the changeable piece of the instant application gathers paper by rotating in a gathering direction and feeds paper by rotating in a feeding direction, the changeable piece (including 4) of Japanese Publication No. 61-2641 will also gather paper if it is rotated in a gathering direction and feed paper if it is rotated in a feeding direction, e.g., rotated by hand or by some motor.

Regarding claim 19, it is the examiner's position that the body of claim 19 does not breath life into the preamble of claim 19. As such, the preamble has not been given any patentable weight. Moreover, all of the elements of claim 4 are described above in the rejection of claim 4. Thus, all of the elements of claim 19 are met.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,415,390 (Guerrero) as applied to claim 9 above, and further in view of U.S. Patent Publication No. 2003/0160380 (Choi et al.)(hereinafter "the Choi et al. publication"). The Guerrero patent discloses all of the limitations of claims 15 and 16, except for the thickness of the tip section of the blade compared to the base section of the blade.

The Choi et al. publication discloses that it is well known to provide blades on a rotary member that are shaped such that they gradually increase in thickness from a base section toward a tip section. See, e.g., Fig. 3. The numbered paragraph [0027] of the Choi et al. publication explains that blades having such a cross-section allow the driving and normal forces of the rotary member to be adjusted according to differences in the stiffness of the type of sheet that is fed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the rotary member of the Guerrero patent with blades that gradually increase in thickness from a base section toward a tip section, because such blade structure facilitates adjustment of the driving and normal forces of the rotary member to accommodate differences in stiffness of the type of sheet that is fed, as taught by the Choi et al. publication.

5. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 61-2641 as applied to claim 9 above, and further in view of the Choi et al. publication. Japanese Publication No. 61-2641 discloses all of the limitations of claims 15 and 16, except for the thickness of the tip section of the blade compared to the base section of the blade.

The Choi et al. publication discloses that it is well known to provide blades on a rotary member that are shaped such that they gradually increase in thickness from a base section toward a tip section. See, e.g., Fig. 3. The numbered paragraph [0027] of the Choi et al. publication explains that blades having such a cross-section allow the driving and normal forces of the rotary member to be adjusted according to differences in the stiffness of the type of sheet that is fed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the rotary member of the Japanese Publication No. 61-2641 with blades that gradually increase in thickness from a base section toward a tip section, because such blade structure facilitates adjustment of the driving and normal forces of the rotary member to accommodate differences in stiffness of the type of sheet that is fed, as taught by the Choi et al. publication.

Response to Arguments

6. Applicant's arguments filed March 1, 2006 have been fully considered but they are not persuasive. With regard to claims 4, 5 and 8, applicant basically argues that the Office Action does not show where in Guerrero it discloses a changeable piece being rotatable in a feeding direction, as recited in independent claim 4.

In response, it is noted that claim 4 is directed to a rotation member with a changeable piece, in which the changeable piece is **rotatable** in a gathering and a feeding direction. This claim does not positively recite that the rotation member actually does rotate in a feeding direction. Rather, this claim requires the rotation member to be rotatable (i.e., capable of rotating) in two directions. It is the examiner's position that the rotation member (including 22 and 24) of the Guerrero patent, by itself, is capable of rotating in two different directions, e.g., via a user rotating it by hand. Alternatively, the rotation member is capable of rotating in two directions, e.g., via connecting it to some sort of reversible motor. As such, the Guerrero patent meets all of the limitations of claim 4.

With regard to the rejection of claims 4-8 in view of Japanese Publication No. 61-2641, applicant argues that the Office Action does not show that this Japanese publication discloses a changeable piece rotatable in a feeding direction, as is recited in independent claim 4.

As mentioned above, claim 4 does not positively recite that the rotation member actually rotates in a feeding direction. Rather, this claim requires the rotation member to be rotatable (i.e., capable of rotating) in two directions. It is the examiner's position that the rotation member (including 3 and 4) of Japanese Publication No. 61-2641, by itself, is capable of rotating in two different directions, e.g., via a user rotating it by hand. Alternatively, the rotation member is capable of rotating in two directions, e.g., via connecting it to some sort of reversible motor. As such, Japanese Publication No. 61-

2641 meets all of the limitations of claim 4. The rejections of the other dependent claims are outlined above.

Allowable Subject Matter

7. Claims 1-3 are allowed. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

04/20/2006

Kathy Matecki

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